

MAY 15 2007

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REMARKS

Applicant wishes to thank the Examiner for the detailed remarks. Claims 17-25 have been cancelled. Claims 1-4, 6, 7, 9, 10, 13, and 15 have been amended. New claims 26-29 are presented. Accordingly, claims 1-16 and 26-29 are pending in the application.

The amendments to claims 4, 7, 13, and 15 are made for reasons unrelated to the rejections. Claim 2 was amended for proper antecedent basis.

Claims 1-4 and 10-13 were rejected under 35 U.S.C. 103(a) as being unpatentable over Watson (US6248453). Amended independent claims 1 and 10 each recite that the combined weight of the first rare earth element and the at least one second rare earth element is greater than 10% by weight. The Examiner points out that Watson teaches an aluminum alloy comprising 10-70 vol% of $Al_3XL_1_2$ formers including Er, Yb, and Ti. However, Applicant notes that this percentage refers to the volume fraction of the L1 phase, not the elemental composition of the alloy. Indeed, the example alloy compositions given in Watson (col.4, lines 5-22) do not overlap the claimed ranges or do not include the claimed elements. Therefore, the rejection fails to establish that Watson discloses or suggests all of the limitations of the claimed alloy. For this reason, Applicant respectfully requests that the rejection be withdrawn.

Claims 1-5, 7, 8, and 10-16 were rejected under 35 U.S.C. 103(a) as being unpatentable over Higashi (US4713216). As mentioned above, amended claims 1 and 10 recite that the combined weight of the first rare earth element and the at least one second rare earth element is greater than 10%. Thus, the claimed alloy does not overlap the alloy disclosed in Higashi, which specifies that the content of the rare earth element does not exceed 10% (col. 2, lines 44-51). For this reason, Higashi does not disclose or suggest the claimed composition, and Applicant respectfully requests that the rejection be withdrawn.

Claims 1-3, 7-12, 15, and 16 were rejected under 35 U.S.C. 103(a) as being unpatentable over EP 570911 (EP 911). Amended claims 1 and 10 each include at least one minor alloy element comprising copper, zinc, silver, magnesium, tin, titanium, cobalt, and calcium, which were previously recited in dependent claim 3. EP 911 fails to disclose or suggest any of the claimed minor alloy elements. For this reason, Applicant respectfully requests that the rejection be withdrawn.

Additionally, EP 911 fails to suggest the claimed combinations of the first rare earth elements (ytterbium or gadolinium) with the second rare earth elements (gadolinium, erbium or

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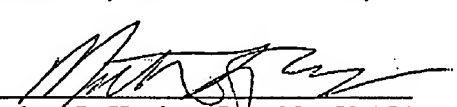
yttrium if the first rare earth element is ytterbium; ytterbium, erbium or yttrium if the first rare earth element is gadolinium). EP 911 discloses using one or more rare earth elements selected from Y, La, Ce, Pr, Nd, Sm, Gd, and Dy, but does not suggest choosing Y and Gd in combination, or choosing them in the claimed amounts. Indeed, there are many possible combinations of the 8 listed elements, and none of the example compositions given in the tables of EP 911 suggest the combination of Gd and Y as claimed. For this additional reason, Applicant respectfully requests that the rejection be withdrawn.

Claims 1-6 and 10-14 were rejected under 35 U.S.C. 103(a) as being unpatentable over Olson (US2004/0055671). Applicant has filed herewith a Declaration under CFR 1.131 establishing invention prior to the effective date of Olson. See MPEP 706.02(b) and 715. Therefore, Olson is disqualified as prior art, and Applicant respectfully requests that the rejection be withdrawn.

Applicant believes that no additional fees are necessary, however, the Commissioner is authorized to charge Deposit Account No. 21-0279 in the name of United Technologies Corporation for any additional fees or credit the account for any overpayment.

Respectfully Submitted,

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CERTIFICATE OF FACSIMILE

I hereby certify that this response is being facsimile transmitted to the United States Patent and Trademark Office, 571-273-8300 on May __, 2007.

Laura Combs